



The difficulty of reconciling the world of sensations with the world of concepts is perhaps the central problem of philosophy. No one, before or since, has done it better than Kant did in the *Critique of Pure Reason*.

Kant wants to establish absolute knowledge as real. Up to his point in time (1781), there was a dichotomy regarding knowledge, empirical v. rational (Hume v Locke).

After Kant lays the ground work he starts dismantling of the standard proofs for the existence of God, and the immortal soul, and the immaterial soul. He uses the standard theistic proofs: Ontological (i.e. Saint Anselm's 'since you can think of a perfect being there must be a perfect being'), Teleological (i.e. by design, he calls it 'physical theology'), and the Cosmological argument (i.e. first cause).

Kant will divide knowledge into synthetic and analytical. Synthetic (and the trick I used, since it begins with 'S' think senses) requires empirical knowledge gathered from the senses. Analytical, think mathematical truths. At its heart math is the study of changeless relations. Relations, are one of the four concepts that make up the twelve categories. Kant believes that mathematics is entwined with the real world. A triangle only makes sense since it can be visualized.

Kant is up front by criticizing dogmatic arguments as boorish and self serving. He'll say that the loudest is not necessarily the most right, and the problem with the ignorant is they never know they are ignorant.

Kant says, we are unable to completely understand the world. He classifies these as Noumena and Phenomena. Noumena is the reality, the thing itself. Phenomena is the appearance of the thing. Space and time constitute as a foundation for everything. In the blue color perception, the color blue is the Noumena, and Glasses are Phenomena.

To understand the genius of Kant, it is important to understand where he's coming from. In the 18th century David Hume was triggered by the success of Newton's mechanics to think of the question: what is true knowledge is? Newton's laws of nature were a huge success and helped to elevate scientific inquiry to a whole new level. Yet, there remained a problem - one that David Hume was keen enough to see: Newton's laws purport to be a priori and universal. In other words: these laws are valid, independent of and prior to (!) our experience.

Hume concluded that, in order for Newton's laws to be a priori and universally valid, they either have to be based on a complete set of data - past, present and future - which is impossible for humans to achieve, or the laws are not a priori: there is no guarantee that the next heavenly observation will not contradict the 'universal laws'. This led Hume to conclude that true knowledge was simply unattainable for human beings and that things like causality are just 'habits' we pick up from experience. While this radical scepticism didn't really bother Hume - he decided that it was for the best to live as if science offered us true knowledge and just continue with our lives - was too much for Immanuel Kant to accept.

In the *Kritik der Reinen Vernunft*, Kant sets out to explore the limits of this Pure Reason and tries to offer us pieces of certain knowledge (a priori, so independent of experience - this is important to grasp and remember!!). This is a radical new way of approaching the search for true knowledge, and it shouldn't surprise us that in doing so, Kant destroys many illusions that had for centuries convinced the smartest people of their truth. Now, on to the *Kritik* itself; even though it is a very long, abstract book, the essence can be stated very clearly and in summarized form.

Kant searches for knowledge that can be gleaned from studying the relations (!) of concepts, not the concepts themselves. This is knowledge that adds certain and true information - in other words this is synthetic knowledge a priori (in contrast to analytic knowledge a priori, which only deals with definitions of concepts and adds nothing new).

The first problem is the infinity of space and time. It is logically possible to argue that either the world is infinite (in space and/or time) or the world is finite (in space and/or time). Kant's solution is acknowledging that the world is an object of experience - imperfectly perceived via our notions of space and time - so these statements don't deal with the real, transcendental and unknowable world. Poof! Gone is the first antinomy.

The thesis and antithesis represent (according to Kant) rationalist and empiricist positions - the empiricist can refute the rationalists' position but is not capable of offering a certain position himself. Thus all these problems end in radical scepticism (i.e. Hume). Kant, by applying his synthetic knowledge a priori is able to show that these are not real but just apparent problems.

This dialectical method of resolving philosophical problems has an important corollary, though. Kant makes a clear distinction of the world we perceive (via our notions of space and time) and the world as it is in itself (partly knowable via the categories). This means that proofs for the existence of God have lost all their validity.

There are three proofs for the existence of God: (1) the ontological argument (God exists necessarily, since existence is part of Perfection), (2) the cosmological argument (everything has a cause, therefore the universe has a cause, one that has to be a cause in itself - i.e. God) and (3) physico-theological argument (the adaptive complexity in the universe hints at a purpose; God is the watchmaker of it all - he designed it).

Kant's refutations, in short:

- (1). Existence is not a predicate; there is no logical connection between God and his existence. (i.e. deriving an objective reality from of a subjective concept).
- (2). Our notions of the universe are imperfect representations of the world as it is in itself; therefore we cannot use our experience to say things of the Transcendental World (of which God is part).
- (3). Our notions of the purposiveness and complexity of the things on our universe are a posteriori experienced knowledge; therefore it is imperfect knowledge; hence it impossible to use this knowledge to prove something in the Transcendental World.

Kant basically says that all three arguments for the existence of God are the ontological argument: they all fall back to proving the objective existence of something (God) from subjective knowledge - this is impossible. So Kant destroys the possibility of proving God's existence once and for all.

Kant wrote his *Kritik* in 1781 (and updated it in 1787), so we cannot really blame him for this, but there is another

problem, also related to causality, with his Transcendental Idealism. One of the supporting pillars in his theory is (collectively) the notions of space and time and the 12 categories. Einstein showed us that absolute time and space don't exist; time is just part of a four dimensional thing called spacetime and is, like space, relative.

The questions and proofs concerning the existence of God, soul, free will, causality and so on are also outside these bounds of reason, not legit questions, and without any definitive answers in affirmative or negative. However, ideas like God and soul provide us with an a priori structure of pure reason – that of the unity of our representations and because of this are extremely useful. As such, speculative theology is nothing else but pure reason running wild. On the other hand, there is the practical reason and practical theology, and there the existence of God, soul, free will, causality, and so on are necessary and as such they all exist.

Kant's transcendental idealism, by collapsing most of what is important inside the human mind, was quite a revolution at that time and probably still is today. It allowed him to successfully bridge the gap between empiricists and rationalists. It explained the success of mathematics and postulated the a priori systemic judgments as the only valid and objective knowledge (due to their necessity and universality).

Kant wished to determine what can be made sense of, and what cannot be made sense of, and in order to do so, he tried to bind the world. What we see is how things appear to us, but how they really are, the things in themselves, we shall never know. We shall never know for they lie outside our field of understanding.

The reason why Kant wrote this behemoth of a book is to lay the foundations for his moral philosophy, something that interested him severely. He felt that only once he has the foundations securely in place, could he move on to talking about how things should be.

Kant's concept of space and time as not only a 'thing' or a 'container' out there to contain objects of the universe, but also a basic category of the human mind. Basically, we are not in time, but time is in us. Without space and time, we cannot conceive objects out there.

His debunking of the arguments on the Existence of God, such as the Ontological, Cosmological, and the Design arguments. In the space of few pages (!), he demonstrated how these old arguments that has a long history from St. Anselm, Aristotle, Descartes and so on, are a result of misunderstanding! Existence is not a predicate.

Some quotes:

"Our age is the very age of criticism, and everything must submit to it. Religion, on the strength of its sanctity, and legislation, on the strength of its majesty, try to exempt themselves from it; but they thereby arouse a just suspicion, and cannot claim that sincere respect which reason grants only to that which has been able to withstand its free and open examination."

"Time has one dimension only; different times are not simultaneous but successive [...]. These principles cannot be derived from experience, because experience could not impart to them either strict universality or apodictic certainty. We should only be able to say that common perception teaches us that it is so, but not that it must be so."

"In every being, its component parts (essentialia) are the matter; the mode in which they are connected in it is the essential form. With respect to things in general, unlimited reality was regarded as the matter of all possibility, and the limitation thereof (negation) as that form by which one thing is distinguished from another according to transcendental concepts."

the Critique is exquisite and breathtaking, once one gets used to Kant's style, finishes the first few chapters, and grasps his motivations and goal. I found only the last part on the Transcendental Method to be dry. The majority of the book is gripping to read, and Kant is not as redundant as most other philosophers of his time. I would recommend anyone when reading the Transcendental Analytic to remember that Kant's motivation is to provide necessary conditions to ground our objective knowledge, like mathematical and geometric truths.

When reading the Transcendental Dialectic, it is beneficial to remember Kant's goal is to present a transcendental structure of cognition, and this totality is not unlike a cathedral; the lower levels meet at and are held together by the very highest point of the structure, and also this point is only possible because it involves the levels beneath. For Kant, this highest point is the transcendental ideas that determine and unify all explanations we form.

Kant is defining the boundaries of human reason. To this end, he uses concepts from physics (space and time) and

the existence of a supreme being (god) to highlight the upper boundary of pure reason. He even constructed three proofs (ontological, cartesian, cosmological) to show that the existence of a creator cannot be discussed using the system of pure reason.

For Kant's philosophy has some rather striking flaws to it. First of all, his way of re-constructing the human mind seems rather artificial. He separates understanding, judgment and reason yet doesn't really explicate the true boundaries between the three (between the two, yes, but judgment's place is left unspecified - on one hand, Kant equates it with understanding and on the other, as a thing of its own), and it's even more difficult to see where apperception should be placed in this construction.

Kant makes it absolutely clear that without experience, there is practically nothing that could be known. It's only *because* of experience that we can figure out its prerequisites and the synthetic a priori judgments which constitute the ideas of pure reason.

He also sets the limits to our reason, and always makes a point of the fact that we can never *know* for sure whether there are limits to the intelligible universe, whether there is such a thing as substance, whether there is such a thing as free causality (and consequently, freedom) or whether the absolute being truly exists.

Kant himself is only *convinced* that the last item is true because of the nature of the laws of morality (without God, there would be no true foundation for our morality, which is definitely true – morality can still exist, of course).

Kant argued that it is impossible to know whether there is or is not a God, or whether there are or are not objects beyond our experience that cause our perceptions. To an empirical, religious culture, that argument seems ludicrous, but after laboring through the details of his architectonic I can appreciate his point. Despite this, Kant himself saw it as necessary to *believe* in God and in the objects lying behind our experience.

Despite this, Kant himself saw it as necessary to *believe* in God and in the objects lying behind our experience. It seems likely to me that \"things\" behind perceptions account for them, but it still seems to be a weakness of Kant's framework to insist nothing can be said or known about them at the same time as saying that they are necessary for experience. That is to say and know something about them. And as far as belief in God being necessary to reason is concerned, Kant proved that *a priori* concepts of intelligibility and morality are necessary to reason, but he did not convincingly show that God as such is the concept that meets that need.

Kant understands God as the Ideal of Pure reason, meaning that the concept of God is a consequence of the a priori categories constituting reason. That is to say, the way our reason works, is teleologically driven towards this all-inclusive object.

Thoughts without content are empty, intuitions without concepts are blind.\"

This is a point Kant elaborates on over and over, although rarely as clear and straight forward as here.

First, Kant argues that for any of our experiences in life to make any sense, we need a priori aspects of consciousness. He revises Newton and argues that Space & Time are a priori conditions of our consciousness that enable us to understand experience as unfolding within space and time. This relativizes Space & Time in a sense since the experience of Space & Time is only possible given the subjective constitution of our minds.

However, he does not go as far as Einstein in arguing that Space and Time are truly relativistic in the physical sense, only in the subjective sense. But even accounting for the changes wrought to our understanding of Spacetime by Einstein, Einstein does not necessarily disprove Kant's assertion that a priori structures of our consciousness are necessary in order for us to perceive experience as happening in space and time.

Kant believes that philosophical speculation has, throughout history, gone way too far. This is a major aspect of the book, and it is a crucial aspect of his attempting to reorient metaphysics.

Kant flirts with phenomenal deduction throughout the book, and his work obviously elicited a major response from Hegel, whose works took phenomenal deduction to a new level. This development would expand well into the twentieth century and helped direct the philosophy of Heidegger, Sartre, and Derrida. Also implicit within Kant's system is the possibility of existentialism.

Kant first discussed metaphysics. The translation of Metaphysics refers to metaphysics, which is a philosophical

system that studies the non-objective or intangible world in a transcendental and speculative way, rather than studying the phenomena and laws of the real world. The main questions of metaphysics include: what is the origin of the supernatural world, whether the soul exists, free will, etc. Kant believes that metaphysics is a completely isolated and speculative rational knowledge. In metaphysics, reason is in trouble.

Kant talked about perceptual, intellectual and rational ways of human cognition. Sensibility is the intuitive feeling we get from the appearance of visualization. For example, when we see the Yangtze River, we have the appearance of the Yangtze River in our hearts. This is sensibility, and we have gained experience from it.

The transition from intuition to concept has produced intellect. The concept delineates the category for us, and the category does not depend on the sensibility but only arises from the knowledge. From the intuitive feeling of the Yangtze River from experience, we came up with the concept of river, so that the Yellow River, Euphrates River, etc. can be classified as rivers. We have gained knowledge from experience objects.

The pattern of a purely intellectual concept is something that cannot be brought into any image. For example, we can see various images of rivers, but the patterns of rivers can only exist in the mind. And reason does not involve intuition, only judgment and concepts. Rational concepts are used to judge and reason, and intellectual concepts are used to understand. And the highest reason produces ideas.

Metaphysics uses three concepts as the research purpose: God, freedom and the immortality of the soul. None of these propositions are based on sensory experience. The three elements that reason contains are innate form, a priori category and innate idea.

The transcendental Kant refers to is something that, although prior to experience, can make empirical knowledge possible. Transcendent refers to things that go beyond all possible experiences, beyond time, space, and other forms of existence, and cannot think in terms of causality, attributes, existence, and nonexistence.

Since our perceptual knowledge based on the appearance of things cannot be equated with the things themselves, knowledge based on principles will be completely different from intellectual knowledge based on experience. From this perspective, social sciences and humanities are often intellectual, while natural sciences, especially mathematics, are often rational.

"All our knowledge starts with experience, which is beyond doubt; because the cognitive ability is stimulated to act, if this is not because the object stimulates our senses, on the one hand it creates the appearance by ourselves, and on the other hand makes our intellectual action To operate, to compare these appearances, to connect or separate them, and to process the raw materials of perceptual impressions into knowledge of objects called experiences. What is the reason? So in time, we don't have any Knowledge precedes experience, and all knowledge starts from experience."

Accordingly, the resulting mono-gram that Kant refers to here (the schema) is a product of multiple letters (pure a priori imaginations), and yet when it is acted out in space and time, it appears to be a single letter. This single letter determines the relationship that a priori imaginations have, or will have, with each other and with space and time. Hence, a schema realizes the mediation of intuitions and concepts, applying a priori concepts to the spatial and temporal conditions of intuition. The critical difference between synthesis and schematism, as Deleuze (1978) identifies, is the order of questions. In synthesis, the tree is available to the subject, and the subject needs to recognize the tree as such. However, a schema is not a rule of recognition. It is a rule of production, which occurs through producing an experience in space and time, in conformity with one's own concepts (Deleuze 1978). A construction site, then, is the ultimate schema, in which developers, researchers, architects, engineers and construction workers slowly achieve the spatio-temporal projections of their multiple a priori concepts. It is a mono-gram of the manifold pure a priori imaginations that constitute the site.

This, too, has its profound truth in Kantian philosophy because it means that the world in which we are captive is in fact a self-made world: it is the world of exchange, the world of commodities, the world of reified human relations that confront us, presenting us with a façade of objectivity, a second nature."

However, Adorno (1959: 228) challenges the idea of a pure form by suggesting that "the relation of form to content is not that of an empty form into which a content flows, as generally appears to be in the case of Kant, but here, too, the situation is one of reciprocity. That is to say, this form only exists if it has a content, because it is form only as the form of a content, just as, on the other hand – as Kant correctly perceived – a content can only exist if these

forms can actually be said to exist." Does this imply that the content gives shape to the form as well? The time-form, as experienced in the construction site in multiple ways, inheres different types of social content, which eventually drag subjects in opposing directions, although enabling them to build this one renewable energy plant.

Kant's primary aim is to determine the limits and scope of pure reason. That is, he wants to know what reason alone can determine without the help of the senses or any other faculties. Metaphysicians make grand claims about the nature of reality based on pure reason alone, but these claims often conflict with one another. Furthermore, Kant is prompted by Hume's skepticism to doubt the very possibility of metaphysics.

Kant draws two important distinctions: between a priori and a posteriori knowledge and between analytic and synthetic judgments. A posteriori knowledge is the particular knowledge we gain from experience, and a priori knowledge is the necessary and universal knowledge we have independent of experience, such as our knowledge of mathematics. In an analytic judgment, the concept in the predicate is contained in the concept in the subject, as, for instance, in the judgment, "a bachelor is an unmarried man." (In this context, *predicate* refers to whatever is being said about the subject of the sentence—for instance, "is an unmarried man.") In a synthetic judgment, the predicate concept contains information not contained in the subject concept, and so a synthetic judgment is informative rather than just definitional. Typically, we associate a posteriori knowledge with synthetic judgments and a priori knowledge with analytic judgments. For instance, the judgment "all swans are white" is synthetic because whiteness is not a part of the concept of "swan" (a black swan would still be a swan even though it isn't white), but it is also a posteriori because we can only find out if all swans are white from experience.

Kant argues that mathematics and the principles of science contain synthetic a priori knowledge. For example, " $7 + 5 = 12$ " is a priori because it is a necessary and universal truth we know independent of experience, and it is synthetic because the concept of "12" is not contained in the concept of " $7 + 5$." Kant argues that the same is true for scientific principles such as, "for every action there is an equal and opposite reaction": because it is universally applicable, it must be a priori knowledge, since a posteriori knowledge only tells us about particular experiences. The fact that we are capable of synthetic a priori knowledge suggests that pure reason is capable of knowing important truths. However, Kant does not follow rationalist metaphysics in asserting that pure reason has the power to grasp the mysteries of the universe. Instead, he suggests that much of what we consider to be reality is shaped by the perceiving mind. The mind, according to Kant, does not passively receive information provided by the senses. Rather, it actively shapes and makes sense of that information. If all the events in our experience take place in time, that is because our mind arranges sensory experience in a temporal progression, and if we perceive that some events cause other events, that is because our mind makes sense of events in terms of cause and effect. Kant's argument has a certain parallel to the fact that a person wearing blue-tinted sunglasses sees everything in a bluish light: according to Kant, the mind wears unremovable time-tinted and causation-tinted sunglasses, so that all our experience necessarily takes place in time and obeys the laws of causation.

Time and space, Kant argues, are pure intuitions of our faculty of sensibility, and concepts of physics such as causation and inertia are pure intuitions of our faculty of understanding. Sensory experience only makes sense because our faculty of sensibility processes it, organizing it according to our intuitions of time and space. These intuitions are the source of mathematics: our number sense comes from our intuition of successive moments in time, and geometry comes from our intuition of space. Events that take place in space and time would still be a meaningless jumble if it were not for our faculty of understanding, which organizes experience according to the concepts, like causation, which form the principles of natural science.